

WITH THE FARMERS

By Prof. W. F. MASSEY

Corn Smut. Corn smut differs from that on oats and wheat, in that it is not carried by the seed, but by the spores which are blowing about in the air. The manure from hauled stalks in housing the crop. Stock will eat smutty corn without harm, and the spores will get into the manure that goes to the field, and the soil will get infected, and the spores will germinate in the germinating grain, and grow through the plant and finally fruit in a big distorted ear full of the smut spores. As corn smut never gets into the plant except just at germination, the important thing is to keep the smut spores away from the good ones. In cutting corn in the fall do not cut the stalks on which are smutty ears. Let them stand, and after the good stalks have been cut, cut the smutty ones and carry them off, where they will burn, and the spores will be destroyed. Never let a smutty stalk get into the barnyard corn, and you can keep clear of the smut. Of course a good rotation helps here too, and corn should not follow corn.

Time and Inoculation. "How long a time should pass between spreading burnt lime and the sowing of soy beans if hydrated lime is used? Is inoculation needed when lime is used and 200 pounds of acid phosphate are applied at sowing? Will the Farmogerm keep alive for six months or a year? After plowing the land for the beans, apply the lime and harrow it in, and there is no necessity for waiting the 1,000 days before the fertilizer and sow the seed at once. The so-called hydrated lime is simply water-slaked lime, and I never buy slaked lime, but always get fresh lump lime and slake it myself, rather than pay freight on the water.

Years ago, when I was farming in Albemarle, I got my lime in bulk in carloads from the Valley. A carload was 400 bushels. I hauled the lime and piled it in a convenient place, and slaked it with water till it fell in a powder. Then I found that I had nearly 1,000 bushels, and if I had bought water-slaked lime I would have had nearly 1,000 bushels. I have since bought 400 to get the same amount of lime. The limeburners gave special prices for fresh lump lime on a guarantee that it would be used for agricultural purposes, and the railroad made lower rates on the same warrant. Good stone lime will slake over two bushels to one, and oyster shell will slake about two bushels to one.

The Farmogerm cultures are put up in a very secure way. In fact, the most scientific method I have observed, and I cannot see that any bacterium may not live for months in the vials. Farmogerm is the only artificial culture of legume bacteria that I have had any success with, though I am testing this season another variety made by a first-class bacteriologist, and it may be good. But the method of putting up the Farmogerm for transportation is the most scientifically correct that I have seen.

Lime on New Land. "Would you advise liming new land that turns blue litmus paper slightly pink?" As a rule, all newly-cleared land is acid, especially pine land, and I have always found that it pays to lime such soil.

Lime on Leachy Soil. "How does lime prevent the leaching of a leachy soil?" The physical effect of lime on a sandy soil that is inclined to leach is that it sticks the particles together, somewhat after the manner of a heavier mixture in making mortar, and these sink in the soil and form a compact layer below the plowing, and in this way do to some extent check the tendency to leach fertility downwards. The formation of something like a hard pan in such soils is a great help in their improvement. The next thing is to fill the soil with vegetable decay, which, through its moisture-retaining power, will retain fertility. By getting an abundance of humus in the soil, I have seen pine-barren land in North Carolina brought up from being almost utterly nothing to making ninety bushels of corn an acre.

Crimson Clover vs. Burr Clover. "What advantage, if any, has crimson clover over burr clover when grown for soil improvement? I have a crop of crimson clover, but a demonstration has advised me to substitute burr clover, as it will seed the land and come again in the fall. I intend to stick to crimson clover, but would like your opinion?" I would consider the crop of crimson clover worth more than two crops of burr clover in the improvement of the soil. Not only because it gets as much or more of the aerial nitrogen, but makes a heavier mass of organic matter to return to the soil if plowed under. The only advantage burr clover has is that it is more resistant to frost, but climatic effect will give far more damaged beans and require far more expensive hand picking. The best white bean for winter use in the South is an improvement on the old Dutch Caskefio bean, called Becker's Green Pod.

This bean can be planted alongside of corn or furnished with poles like butter beans. It is a climber and very prolific, and will make a better crop of clean, sound beans than the navy bean will in our climate. It is good, too, as a snap bean when green. I plant them to run on chicken wire netting and give a very fine crop, both green and ripe.

Effects of Fertilizer. "Will nitrate of soda make land poor? I have heard that it has this effect. Any fertilizer improperly used may result in injury to the soil. Nitrate of soda promotes the vital activity of plants, and thus enables them to draw more heavily on the plant food in the soil, and unless the soil is well supplied with other forms of plant food, the use of the nitrate may result in a loss of fertility. Nitrate of soda is an excellent application to promote this vital activity when there is plenty of the mineral foods at hand, for it is the phosphorus and potassium that make the grain and the cotton thrive, and with a deficiency of these the nitrate will not result in greater fruitfulness, but only in a bigger plant.

Shipping Sweet Potato Plants. "Can sweet potato plants be sent

safely by express or parcel post?" Certainly they can be shipped as easily as plants of any sort. Years ago I sent them to California safely. They should be wrapped in slightly damp sphagnum moss and in paraffin paper and then wrapped in stout paper, and they will travel in perfect safety. I have sent all sorts of young plants in this way.

Growing Cowpeas for Seed. At the prices that cowpeas have commanded for years past, it will make a good crop to grow them, especially for seed. The seed for the future will always be grown in the upper South north of Mississippi, for in the lower South they do not seed as freely as further north, and the seed peas should be generally grown in Virginia, North Carolina and Maryland. The old plan of gathering the peas by hand and shelling them out is too expensive and has been the cause of the high price of seed to a great extent, aided, of course, by the increased demand. For seed, the peas should be planted in rows three feet apart. We have now a pea harvester that will gather the peas, thresh and clean them as it goes, draw a pair of mules, and carries them out for sacking. Of course the peas must be let stand till deep ripe and no hay is made, but the vines and the hulls all go back to the soil for its improvement.

Then there is another machine that threshes the peas clean from the cured hay, and either of these is far better than hand-picking. Of course there are machines that will hull and clean the seed from the pods, but these involve the expensive gathering by hand, and this is what we need to avoid. To make seed peas growing a success we must do it on a commercial scale, and the seedsmen are always ready to contract for crops of special varieties.

Turkey Buzzards. Some States are repealing the law protecting the buzzards, and every State should do so, for there is no greater spreader of hog cholera than the buzzard. I once lost an immense and valuable Berkshire boar, and thought that I would save his great hide. I tacked it up on the end of my hoghouse to cure after salting it. Directly the buzzards saw it and swooped down. Then shortly after the chief broke out, and I lost seventy-five out of 110 hogs, and it started right where the buzzards came down. So long as people fail to bury deeply all dead animals, the buzzards will carry the disease all over the neighborhood. We can stop the greater part of the hog cholera by destroying the buzzards.

Bulb-Growing in the South. An industry is growing up in Southwest Virginia and North Carolina that is destined to become of considerable importance. This is the growing of flowering bulbs that are used in immense quantities by the Northern florists for forcing in winter. Years ago the production of the bulbs of the tuberose was started at Magnolia, N. C., and the conditions there were so favorable to this plant that the production of these bulbs has centered about that point, and in nearly all the tuberose bulbs used in the North, Maryland and in England are grown around Magnolia. But tuberose went out of fashion, as people got tired of their powerful odor, and the demand lessened and the price fell low. Now the growers are experimenting with other bulbs, though still growing millions of the tuberose.

In Southern Virginia grower from the Channel Islands, where the narcissus bulbs are very largely grown, started to produce them near Portsmouth, Va., and in Greenville County and other places they are being grown now.

Asking an importer in Philadelphia how he liked the Virginia-grown narcissus bulbs, he said that they are not so large as the imported ones, but seemed to bloom earlier, and he did not like them. I then asked a large florist commission house. They said that the Virginia bulbs were taking the market, and the florists found that they bloomed earlier than the imported ones, and he had sold over a million of them. I told this to the importer, and he said: "Oh, yes, we sold 200,000 of them last year. The soils of Southeast Maryland and Virginia, the old Maryland Lillium candidum, thrives wonderfully, and makes bulbs that carry more flowers than the French ones, and it will not be long before they take the place of the French bulbs in the market. We are gradually finding out that in various parts of this country we can find conditions favorable to any of the bulbs we imported, and the gardeners are taking an interest in these things. We have a wonderfully varied country, and soils and climates of every sort, and should develop the culture adapted to each.

Don't Ask Things Out of My Line. Some of my friends seem to think that I am a sort of walking encyclopedia, and ask questions entirely out of my line. I am ready to undertake the reply to any question in regard to farming, but when a man, as one in Nansmond, writes asking what sawmill to buy, and where to buy it, I simply cannot say, for I never bought a sawmill nor any interest in one in my life. Another asks how to make the mixed pickles sold in the stores. Better ask Mrs. Key. Then a young man who is going to take part in a debate writes and asks me to write a speech for him. Letters like these are simply a waste of time on the part of the writers.

Learning. But we are living and learning, and I have found out this season that good strong soapuds make one of the most effective sprays against the plant lice, or aphides, that are apt to infest in spring, and they are also good to drive the green worms from cabbages. Use the waste suds from the week's wash and put them on the garden.

Farm Managers. We hear many complaints from men of wealth owning farms in regard to the inefficiency of farm managers. This is not to be wondered at. Business men looking for efficiency in commercial life always expect to pay what such men are worth. But when the manager comes to own a farm the management and improvement of which, in a businesslike way, demands much brain and energy as in any other pursuit in life, he thinks that a man can hire for \$40 to \$50 a month is all that he pays for, and he gets just what he knows of one farm manager in Virginia who was paid \$5,000 a year, and made a success for the owner. The produce exchange on the Eastern Shore of Virginia, was not enough to know that to make a success in handling their produce they must have the best brains and capacity, and they pay for them. A \$5,000 a year, and he has made good. But business men will advertise for a farm manager, and will specify that his wife is to make the butter and handle the poultry, and the man can get \$30 a month, and he gets a man who is willing to throw such in as a make-weight, and then finds that he has an incompetent manager, as he might have known at the start.

Brains and experience are worth as much in agriculture as anywhere else.

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NEFF WILL LEAD BASEBALL SQUAD

Elected Captain of Virginia's 1914 Team—Cronley Pilot of Track Men.

Charlottesville, Va., May 21.—The General Athletic Association of the University of Virginia has awarded letters in baseball and track as follows:

Baseball—Finley, Neff, Green, Lile, Fitchett, Phillips, Beckwith, Gammon, Stickle, Landes, Grant and White.

Track—Cooke, Gantt, Cronley, Blanchard, Mayer, Gooch, Beckett, Diebolt, Wright, Maxson, Barton and Mason.

Douglas William Neff, of the University, was chosen captain of the 1914 baseball team. He is a student in the engineering school, this being his fourth year in college. He is regarded as one of the best infielders in the college baseball world, and is also one of the best hitters on the team. The past season he made his debut as a twirler, twice defeating Georgetown and winning over Princeton, at Princeton, on the Northern trip.

John Hill Cronley, of Petersburg, Va., was elected captain of the track team to succeed Wiley Cooke. He is a first-year student in the college. During the past season he proved himself the champion hurdler of the college, winning by defeating a strong field at the intercollegiate, held at Philadelphia. At the dual meet held here with the University of Pennsylvania last month, Cronley won both the low and high hurdles in easy fashion. He came to the university from the Episcopal High School. He will probably go to the next Olympic games.

HARVARD'S CREWS START FOR RACES

Cambridge, Mass., May 21.—The Harvard varsity and freshman crews left the square to-night at 7 o'clock en route for Ithaca, where "Pera" Courtney's charges will be engaged on Lake Cayuga on Saturday. But a handful of students were on hand to wish the oarsmen bon voyage. Twenty-eight were in the party. Coach Wray before leaving said:

The varsity line-up for Saturday's race will be: Stroke, Harwood; 7, Meyer; 6, Goodale; 5, Curtis; 4, MacVicar; 3, Murray; 2, Trumbull; row, Reynolds; cox, captain, Ables.

The party will arrive at Ithaca at 10 A. M. tomorrow. They will row twice a day until the race. Harvard will enter its second freshmen into the Henley regatta, May 31, instead of the second varsity eight.

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Greenville, S. C., May 21.—More than three thousand persons attended the second day of the Greenville Horse Show. The horse races were very good. The only mishap of the day occurred when Colonel P. G. Bowman, of Spartanburg, was spilled from his rig during a race. The doctor gave him no assurance of reaching there alive.

On July 1, 1915, I began taking Eckman's wonderful remedy for Consumption. I weigh 150 pounds. I am stout and well and can do any kind of work about my grain elevator.

Michigan Wins at Tennis. Ann Arbor, Mich., May 21.—The University of Michigan defeated the Naval Academy colors at tennis this afternoon, winning three straight sets out of four at singles and making an even break on the doubles. Reindel, of the visitors, played the best tennis seen here this year.

Woodberry Wins Fast Game. Alexandria, Va., May 21.—In a game exciting throughout, Woodberry won from Episcopal High School 2 to 1 today. Hill, for Woodberry, pitched a star game, allowing only four hits. Giamer's catch of Cronley's drive with the bases full was the feature. Score:

Woodberry R. H. E.
Episcopal High School 1 4 2

Middlebush Wins at Tennis. Ann Arbor, Mich., May 21.—The midshipmen had as their opponents at baseball this afternoon the men of Notre Dame University, and won by 7 to 1. The midshipmen played a strong game in the field, and their hitting was impressive.

McGUIRE'S LEADS IN PREP LEAGUE

Richmond Academy Loses Championship to Friendly Rivals in Ten-Inning Struggle.

By defeating Richmond Academy yesterday afternoon at Byrd Park, McGuire's University School won the preparatory school championship of Richmond for the sixth successive year.

The game yesterday afternoon was very interesting, and quite a large crowd was present. In the ninth inning McGuire's was in the lead, and it certainly looked like their game, but McGuire's came back and won out at last.

In the third inning McGuire's scored five runs by bunting hits and by a successful double steal. In the fourth the Academy made two runs, and two more in the sixth, and two again in the seventh, which put them in the lead.

McGuire's came to the bat first in the ninth, with the Academy in the lead by one run. When two balls had been pitched in this inning it started raining, and the game was stopped for about twenty minutes. When the umpire started the game again McGuire's came with a rush, and scored the tying run, and then in the tenth the winning runs were scored.

Hammond pitched a good game, striking out ten and allowing only eight hits; and Paschall, Snead, Starkey and Craven also played star ball.

For the Academy, Wicker and Mahone were the stars, although each made a costly error. McGuire's expects to close the season with Jefferson School at Charlottesville next Saturday, but an exhibition game may be played with John Marshall High School on next Wednesday at Broad Street Park.

The score:

McGuire's.	A.B.R.H.O.A.E.
Paschall, ss.....	5 1 2 2 4 0
T. Coghill, cf.....	5 0 0 3 0 0
Gravely, 1b.....	5 0 3 3 0 0
Leach, 1b.....	1 0 0 0 1
M. Coghill, 3b.....	4 2 1 0 1 0
Snead, rf.....	2 1 2 0 0 1
Starkey, 2b.....	4 2 2 5 1 0
Craven, c.....	5 0 2 10 0
Hammond, p.....	5 1 0 0 1 1
Totals.....	40 8 11 30 9 3

Academy.						
	A.	B.	R.	H.	O.	A. E.
E. Roder, 2b.....	4	1	1	2	2	1
Pitt, ss.....	5	0	1	2	4	1
D. Roder, 3b.....	5	1	1	1	2	1
Wicker, lf.....	5	2	3	4	0	1
Harrison, rf.....	5	0	0	3	0	0
Miller, 1b.....	3	1	1	13	0	0
Mahone, c.....	5	0	1	4	3	1
King, p.....	5	0	0	0	4	0
Montague, cf.....	4	1	0	1	0	0
Totals.....	41	6	8	30	15	5

McGuire's by innings: 1 0 0 0 0 0 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199 200 201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217 218 219 220 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250 251 252 253 254 255 256 257 258 259 260 261 262 263 264 265 266 267 268 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